

SUMMARY OF SUBCOMMITTEE MEETING

DATE: March 20, 2002

TO: Ross Dunfee, Steering Committee Chairman
Tony Barrett, Department of Ecology

COPY: Stormwater Manual Subcommittee Members and Consultant Team

FROM: Doug Busko, DEA and Jim St. John, DEA

SUBJECT: **Summary of Stormwater Manual Subcommittee Meeting**
Moses Lake Conference Center
March 14, 2002 9:00 am – 2:00 pm

PROJECT: EASTERN WASHINGTON STORMWATER MANAGEMENT
Stormwater Management Technical Manual *and*
Model Municipal NPDES Phase II Stormwater Program

Subcommittee Meeting Attendees:

Don Gatchalian – Yakima County	Khalid Marcus – Yakima County
John Hohman – Spokane County	Paula Cox – Chelan County
Steve Worley – Spokane County	Steve Hansen – City of Spokane
Jocelyne Gray – JUB Engineers	Gary Nelson – Spokane County
Dave Moss – TetraTech	Jim St. John – DEA
Greg Lahti – WSDOT	Doug Busko – DEA
Nancy Aldrich – City of Richland	Steve King – RH2 Engineering
Ray Latham – Ecology	Dave Kliewer – JUB Engineers
Michele Brich – Tri-Cities Homebuilders	Michael Hepp - Ecology
Sandra Levey – Grant County PUD	Tony Barrett - Ecology
John Heinley – WSDOT	Shelley Wilson – City of Yakima
Tony Schouviller – Benton County	Gary Beeman - WSDOT
Ross Dunfee – Benton County	Jennifer Lange – The Lange Group
Beth Kochur – HDR	Mel Schaefer – MGS Engineering

PURPOSE OF MEETING:

This meeting was held to gather the core subcommittee members and at-large members for:

- A presentation by Mel Schaefer on the work he has been doing on design storms in Eastern Washington
 - Review of the first draft of Chapter 4 (Hydrologic Analysis and Design)
 - Discussion on Issue Papers 1 and 2, dealing with impervious area thresholds and flow control
 - Reviews of Chapters 6, 7, and 8, time permitting
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AGENDA FOR THIS MEETING:

1. Steering Committee meeting – NPDES Phase II/Technical Manual joint meeting
2. Presentation by DOE on UIC rules and drywells
3. Begin subcommittee meeting – introductions and agenda
4. Presentation by Mel Schaefer on water quality design storms in Eastern Washington
5. First review of Chapter 4 (Hydrologic Analysis and Design)
6. Lunch
7. Distribution and review of Issue Paper #1 (Pollution Generating Impervious Surface threshold) and Issue Paper #2 (Flow control to significant waterbodies)
8. Brief review of Chapter 7 (Construction Stormwater Pollution Prevention) and Chapter 8 (Source Control)
9. First review of Chapter 6 (Water Quality Facility Design)
10. Adjourn Subcommittee meeting

BRIEF SUMMARY OF PROCEEDINGS:

1. The Manual Subcommittee and NPDES Subcommittee were gathered together by Ross Dunfee for an update on some topics that affect both groups.
 - The next meeting will be in Moses Lake on Friday, April 12, to avoid a conflict with the Non-Point Source conference in Spokane.
 - House Bill 2847, which would require formation of a technical oversight committee for evaluation of environmental regulations, died in committee. House Bill 2866 passed out of the House and Senate. This bill addresses the connection between HPA's and municipal NPDES permits.
 - Bill Moore of DOE stated that the Phase II permit will not address most classes of drywells. Ecology will define the class of drywells that are "rule-authorized", i.e., possibly residential and roadway installations. Also, jurisdictions with no discharge to surface water will not be required to obtain coverage under the Phase II permit. Although drywells will not be covered by the Phase II permit, it was suggested that evaluation and design procedures for them remain in the Manual. Tony Barrett suggested that a working committee of the Manual Subcommittee be put together to assist in the creation of drywell guidelines with Mary Shaleen-Hansen of DOE. The subcommittees at this point broke into their respective meetings.
2. Steve Worley welcomed the group and took a poll of the group whether drywells should remain in the manual, which resulted in strong support that they should. Tony Barrett said that the manual needs to define

when stormwater runoff should be considered contaminated or likely to be contaminated, thus requiring treatment before discharge to groundwater, and the manual should help define when the natural soil profile will be expected to provide adequate treatment or additional pre-treatment will be required. The UIC regulations state that:

- Disposal of waste fluids from industrial, commercial, or municipal sources into wells will not be authorized unless the requirements of this chapter (of the UIC regulations) are met.
- "Waste fluid" is defined as any discarded, abandoned, unwanted or unrecovered fluids, except for the following:
 - (1) discharges into the ground or ground water of return flow, unaltered except for temperature, from a ground water heat pump used for space heating or cooling, provided that the discharge does not have significant potential to affect ground water quality.
 - (2) discharges of stormwater that are not contaminated or not potentially contaminated by industrial or commercial sources.

3. Dave Moss reviewed last month's meeting, and shared a few ideas on how to approach the issue of thresholds. One approach would be to delay addressing Chapter 2, which deals mainly with thresholds, until later in the manual writing process, due to the difficulties encountered thus far in wrestling with this chapter. The idea is that by addressing other chapters first we will, in the process, indirectly draw conclusions on certain thresholds. There was some concern from the committee that it will be difficult to review the other chapters (i.e., the implementation chapters) without full knowledge of the thresholds.
4. Jim St. John handed out Issue Paper 4, Water Quality Design Storm, to the group. The goal of the design storm is to capture between 80 and 100 percent of polluted runoff. Mel Schaefer analyzed both the short duration summer thunderstorm and the long duration winter storm scenarios for Eastern Washington. The long duration storm (6-month, 72-hour) is typically used to design water quality BMPs that are volume-based, while the short duration storm (6-month, 24-hour) is used to design water quality BMPs that are based on peak flow rates. Mel presented two methods for the sizing of bioinfiltration facilities: Method 1 is a lookup table that correlates the 2-year 24 hour precipitation value for a given project site with the runoff volume that must be contained in the bioinfiltration facility; Method 2 is a site-specific hydrologic analysis, incorporating in situ infiltration rates with a single event rainfall-runoff model such as the Santa Barbara Unit Hydrograph. Both methods assume that the infiltration ponds have a flooded depth of 6 inches and that there is approximately 0.10" of runoff intercepted on the surface of the asphalt. Method 1 assumes a constant infiltration rate of 0.10" per hour. Using Method 1 the area of an infiltration facility in Spokane would be about 8% of the project's impervious area; in the Central Basin it would be about 5%; in the Palouse/Okanogan areas it would be about 12%. Mel said that small sites should probably use Method 1, because it is economical and the time of concentration typically does not play a major factor on small sites. Larger sites may benefit from the optimization that Method 2 presents.
5. Jim St. John and Doug Busko reviewed Chapter 4 with the subcommittee. Gary Nelson suggested that the chapter could be condensed if references were given for the standard hydrologic methods. The group decided on a vote that a brief description of each method should be given in the manual, with references to additional sources of information. Other comments included adding TR-55 as an approved method, providing flexibility

for local jurisdictions to allow other methods, and modifying the tone of the chapter from one of “requirements” to more “guidance.” Further review of the chapter was tabled to a future meeting.

6. After lunch Jim St. John handed out Issue Papers 1 and 2 with the subcommittee. Issue Paper 1 recommends a 5,000 square foot threshold for commercial sites and a 10,000 square foot threshold for residential areas, for the requirement of water quality treatment BMPs. Issue Paper 2 recommends control of post-developed flows for the 2-year and 25-year 72-hour storm events. It also lists various waterbodies that should be exempted from flow control requirements. Both of these papers will be reviewed at a future meeting.
7. The last activity of the day was to review Chapter 7, Construction Stormwater Pollution Prevention. Comments included changing all references to “shall” to “should” or “may.” There was no objection to keeping the 12 elements of the Stormwater Pollution Prevention Plan, although it needs to be made clear that only the elements that are applicable to a given project need to be addressed in the plan.

PRELIMINARY AGENDA FOR NEXT MEETING:

The **next meeting** will be at the Moses Lake Conference Center on **April 12, 2002**, from 9am to 2pm. The agenda will include:

- Steering Committee meeting with Subcommittees
- Review of Subcommittee agenda and summary from 3/14 meeting
- Continued discussion of Issue Papers 1 and 2
- Complete review of Chapter 4 (Hydrologic Analysis and Design)
- First review of Chapter 6 (Water Quality Facility Design)